

We claim:

1. A container for storing or transporting at least one contaminated item, comprising:
a plurality of polymeric, multi-layered chemical composite flexible walls that are
5 impervious to gases and liquid and define an interior chamber that has sufficient
dimensions to accommodate said contaminated item;
a gas-tight closable and openable opening for placing and removing said
contaminated item in the interior chamber; and an
air management system that filters and releases pressure from the inside of said
10 interior chamber.
2. The container of claim 1, wherein said at least one contaminated item is a human
or animal body, bodily remain, or forensic sample.
- 15 3. The container of claim 1, wherein said multi-layered chemical composite is a
thermoplastic resin selected from the group consisting of polyvinyl chloride, chlorinated
polyethylene, chlorinated butyl, polyethylene, high density polyethylene, low density
polyethylene, linear low density polyethylene, polypropylene, polyurethane, PTFE,
combinations thereof, or multiple-layered coextruded films which include one or more
20 layers of ethylene-vinyl acetate, ethylene vinyl alcohol, polyvinyl alcohol, nylon, Surlyn
(ionomer), polyester.

4. The container of claim 1, further comprising:

an air management system that includes a uni-direction pressure relief valve and an air-purifying respirator cartridge or canister.

5 5. The container of claim 4, wherein the air management system comprises a C2A1 nuclear, biological, chemical canister.

6. The container of claim 4, wherein the air management system comprises at least one layer of chemisorptive media.

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7. The container of claim 6, wherein the chemisorptive media is activated carbon.

8. The container of claim 6, wherein the chemisorptive media is nuclear, biological, and chemical absorbent.

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9. The container of claim 1, wherein the uni-directional pressure relief valve interfaces with an inflation device for testing under ASTM F1052 while maintaining integrity of the bag.

20 10. The container of claim 1, wherein the container is ASTM F1052 compliant.

11. The container of claim 1, wherein said gas-tight closable and openable opening is a zipper.

12. The container of claim 1, wherein the zipper comprises PVC, PE, Hytrel, PP,
5 butyl, neoprene.

13. The container of claim 1, wherein the multi-layered chemical composite is resistant to at least one of Sarin, Mustard, Soman, nerve agent, Lewisite, tear gas

10 14. The container of claim 1, wherein the multi-layered chemical composite is resistant ASTM F1001 toxic industrial chemicals.

15. The container of claim 1, wherein the multi-layered chemical composite attenuates at least one of alpha, beta, gamma radiation.

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16. The container of claim 1, wherein said multi-layered chemical composite is layered with a thermoplastic polyolefin elastomer layer.

17. The container of claim 11, further comprising a thermoplastic interface material
20 that joins the zipper with the multi-layered chemical composite.

18. The container of claim 1, wherein said walls form an extended tubular body.

5 19. The container of claim 1, wherein said walls are joined by sewn seams, and said seams are hermetically sealed

20. The container of claim 19, wherein said seams are sealed with a chemically resistant tape.

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21. The container of claim 19, wherein said seams are sealed with heat, radio frequency welding, or impulse welding.

15 22. The container of claim 1, further comprising a polymeric abrasion-resistant fabric surface.

23. The container of claim 22, wherein the polymeric abrasion-resistant fabric comprises polyvinyl chloride.

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24. The container of claim 1, wherein the interior chamber comprises a super adsorbent polymer.

25. The container of claim 24, wherein the interior chamber comprises adsorbent pads adhered to the walls that define said chamber.

- 5 26. A gas-tight pouch for transporting contaminated items, comprising:
a polymeric multi-layered chemical composite barrier fabric stitched to form seams which define an enclosed pouch;
an opening and closing device to allow access to the pouch for inserting and removing contaminated items.; and
10 an air release valve to filter and release pressurized air from within the pouch.

27. The pouch of claim 26, wherein the polymeric multi-layered chemical composite barrier fabric composite is a thermoplastic resin selected from the group consisting of polyvinyl chloride, chlorinated polyethylene, chlorinated butyl, polyethylene, high
15 density polyethylene, low density polyethylene, linear low density polyethylene, polypropylene, polyurethane, PTFE, combinations thereof, or multiple-layered coextruded films which include one or more layers of ethylene-vinyl acetate, ethylene vinyl alcohol, polyvinyl alcohol, nylon, Surlyn, polyester.

20 28. The pouch of claim 26, wherein the air release valve is an uni-directional pressure relief valve that comprises chemisorptive media.

29. The pouch of claim 26, wherein the opening and closing device is an air-tight zipper.

30. The pouch of claim 26, wherein said polymeric multi-layered chemical composite
5 barrier fabric composite comprises a thermoplastic polyolefin elastomer layer.

31. The pouch of claim 26, wherein the seams are hermetically sealed with a chemically resistant tape.

10 32. The pouch of claim 26, comprising a polymeric abrasion-resistant polyvinyl chloride surface.